

**REMARKS**

Applicants have amended their specification in order to delete the hyperlink at page 16, line 4, of the specification. In light thereof, it is respectfully submitted that any objection raised by the Examiner in Item [7] on page 3 of the Office Action mailed May 16, 2006, is moot.

Any contention by the Examiner that Applicants have attempted to incorporate subject matter into the above-identified application by reference to a hyperlink is respectfully traversed. While Applicants refer to a hyperlink on page 16 of their specification, it is respectfully submitted that such reference does not constitute an incorporation by reference.

Applicants have amended their claims in order to further clarify the definition of various aspects of the present invention. Specifically, Applicants have amended claim 19, in each of sub-paragraphs 1(a), 2(a), etc., to recite a DNA having the nucleotide sequence "of" SEQ ID NO: 9, 10, etc. Applicants have also amended claims 20 and 21 to recite that the DNA has nucleotide sequences "of" the specified sequence ID numbers. Applicants have further amended claim 19 to insert a colon after "1(b)", and to recite in sub-paragraphs 1(b), 2(b), etc., a DNA being at least 95% identical to the DNA having the nucleotide sequence of the specified sequence ID number, which encodes a protein that is combined with all individual proteins having the amino acid sequence each of specified sequence ID numbers to form a protein complex having  $F_0F_1$  - ATPase activity. In connection with these amendments to the present claims, note, for example, the paragraph bridging pages 15 and 16, as well as the paragraph bridging pages 17 and 18, of Applicants' specification. Applicants have also amended claims 22 and 23 to recite that the DNA is "isolated from" the specified microorganism; and have amended claims 29, 37 and

38 in order to avoid issues raised by the Examiner concerning antecedent basis.

In view of amendments to claim 19, it is respectfully submitted that the objection to claim 19 as set forth in Item [8] on page 3 of the Office Action mailed May 16, 2006, is moot.

Applicants respectfully traverse the rejection of their claims under the second paragraph of 35 USC 112, as set forth in Item [9] on pages 4 and 5 of the Office Action mailed May 16, 2006, particularly insofar as this rejection is applicable to the claims as presently amended. Thus, Applicants have amended claim 19 to delete recitation of the expression "stringent conditions", and have also deleted recitation of the expression "represented by". Applicants have also deleted recitation of the expression "a protein exerting  $F_0F_1$  ATPase activity ...". Claim 19, a presently amended, recites that the DNA has the nucleotide sequence "of" the specified sequence ID number; and also recites that the DNA is at least 95% identical to the DNA having the nucleotide sequence of the specified sequence ID number, which encodes a protein that is combined with all individual proteins having the amino acid sequence each of those specified sequence ID numbers to form a protein complex having the recited activity. In view of amendments to claim 19, it is respectfully submitted that each basis for rejection of the claims as indefinite, as set forth in Items [9][a] through [c], are moot.

Moreover, in light of amendments to claims 22, 23, 29, 37 and 38, it is respectfully submitted that the additional bases for rejection of the claims as indefinite, as set forth in Items [9][d] and [e] on page 5 of the Office Action mailed May 16, 2006, are moot.

In view of amendments to the present claims, it is respectfully submitted that the rejection of claims under the first paragraph of 35 USC 112, set forth in Items

[10] and [11] on pages 5-11 of the Office Action mailed May 16, 2006, are moot. Specifically, Applicants have amended claim 19 (as well as claims 20 and 21) to recite a DNA having the nucleotide sequence "of" the specified sequence ID number, and have deleted recitation of "stringent conditions" from claim 19. It is respectfully submitted that claims 20 and 21 recite DNAs having the nucleotide sequence of SEQ ID NOS: 9-16 and 21, respectively; and claim 19 recites, inter alia, a DNA having at least 95% identical to this DNA having the nucleotide sequence of the specified sequence ID number, and which encodes a protein together with other specified proteins to form a protein complex having a recited activity. In view thereof, it is respectfully submitted that the present claims satisfy both the description and enablement requirements of 35 USC 112, first paragraph.

Attention is particularly directed to recitations in the present claims of a DNA being at least 95% identical to the DNA having the nucleotide sequence of the specified sequence ID number, which encodes a protein that is combined with all individual proteins having the amino acid sequence each of the specified sequence ID numbers to form a protein complex having  $F_0F_1$  - ATPase activity, in sub-paragraphs 1(b), 2(b), etc. In connection with these recitations in sub-paragraphs 1(b), 2(b), etc., the Examiner's attention is respectfully directed to Example 14 of the Revised Interim Written Description Guidelines Training Materials at Website <http://www.USPTO.gov/web/menu/written.pdf>, at page 53ff. A copy of pages 53-55 are enclosed herewith. Particularly in view thereof, it is respectfully submitted that claim 19, as well as the remaining claims in the application, satisfy the description requirement of the first paragraph of 35 USC 112.

Applicants respectfully submit that all of the claims presented for consideration by the Examiner patentably distinguish over the teachings of the

references applied by the Examiner in rejecting the claims in the Office Action mailed May 16, 2006, that is, the teachings of the articles by Santana, et al., "*Bacillus subtilis* F<sub>0</sub>F<sub>1</sub> ATPase: DNA Sequence of the *atp* operon and characterization of *atp* Mutants", in Journal of Bacteriology, November 1994, pages 6802-11, and by Sekine, et al., "Cloning and analysis of H<sup>+</sup>-ATPase Gene of *Corynebacterium ammoniagenes*", a copy of a paper presented July 10, 2000, under the provisions of 35 USC 102 and 35 USC 103.

Initially, it is noted that the article by Sekine, et al., presented less than one year before the filing date of the parent application of the above-identified application, that is, Application No. 09/901,884, filed July 9, 2001, names as authors thereof the inventors named in the above-identified application, as well as additional persons. However, it is respectfully submitted that the subject matter being relied upon by the Examiner in rejecting claims in the above-identified application, from the publication of Sekine, et al., is information generated by the inventors named in the above-identified application, that is Fusao Tomita and Atsushi Yokota. For establishing this, attention is respectfully directed to the enclosed copy of the Declaration of Fusao Tomita and Atsushi Yokota under 37 CFR 1.132, dated respectively May 17, 2003, and May 14, 2003, and having been prepared in connection with the prior application of the above-identified application, No. 09/901,884, filed July 9, 2001. Note discussion of this Declaration in Item [10] on page 3 of the Office Action mailed July 27, 2003, in prior Application No. 09/901,884, filed July 9, 2001.

That is, it is respectfully submitted that the enclosed Declaration establishes that while the inventors named in the above-identified application along with H. Sekine and A. Ishiguro, are co-authors of the applied publication, Mr. Tomita and Mr.

Yokota conceived and invented the subject matter disclosed in the above-identified patent application, and that the abstract of the applied reference describes their own work, the remaining co-authors, H. Sekine and A. Ishiguro, working under their direction.

It is respectfully submitted that this enclosed Declaration establishes that Sekine, et al. does not constitute prior art under 35 USC 102(a), as not being "by another". Reconsideration and withdrawal of Sekine, et al., as prior art, applied in Items [12] and [14] on pages 11-14 of the Office Action mailed May 16, 2006, is respectfully requested.

As Sekine, et al., does not qualify as prior art in connection with the presently claimed subject matter, further discussion in connection with this reference is unnecessary.

In connection with the prior art rejections utilizing the teachings of Santana, et al., in Items [13] and [15] on pages 12, 14 and 15 of the Office Action mailed May 16, 2006, it is to be noted that the Examiner indicates in Item [13] on page 12 of the Office Action mailed May 16, 2006, that while the nucleotide sequences of SEQ ID NO: 21 and the *Bacillus subtilis* F<sub>0</sub>F<sub>1</sub>-ATPase gene of Santana, et al., do not appear to be identical, the *Bacillus subtilis* F<sub>0</sub>F<sub>1</sub>-ATPase gene of Santana, et al., would meet the recitations of claims 19-21, in view of the allegedly indefinite recitation "represented by". However, note that the claims have been amended to delete the recitation "represented by", reciting instead the DNA having the nucleotide sequence "of" the specified sequence ID number, the claims also reciting "DNA being at least 95% identical to the DNA having the nucleotide sequence of the specified sequence ID number, having the function as recited in the present claims. It is respectfully submitted that Santana, et al. would have neither taught nor would have suggested

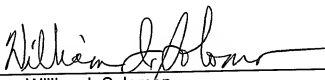
such an isolated DNA as in the present claims, including the DNA having the nucleotide sequence of the specified sequence ID numbers, or a DNA which is at least 95% identical to the DNA having the nucleotide sequence of the specified sequence ID numbers, which encodes a protein that is combined with all individual proteins having the amino acid sequence of the specified sequence ID numbers to provide the function as provided in the present claims; and/or the additional features of the present invention as set forth in the dependent claims 20-38.

In view of the foregoing comments and amendments, reconsideration and allowance of all claims present in the application are respectfully requested.

To the extent necessary, Applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to the Deposit Account of Antonelli, Terry, Stout & Kraus, LLP, Deposit Account No. 01-2135 (case No. 506.40345VX1) and please credit any excess fees to such Deposit Account.

Respectfully submitted,

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